

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No.: 09/777,686

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): An optical recording system comprising in
an optical recording medium and a flying optical head.
wherein the optical recording medium comprises at least a structure comprising a land
and a groove, which takes part in recording/reproducing, is formed on a substrate, at least a reflective layer and a recording layer are formed on the substrate in this order, and information-recording/reproducing is carried out by a said flying optical head, the optical recording medium being characterized in that when the depth from the maximum height of the land to the centerline of the land and the groove is represented by R_p and the flying height from the maximum height of the land to the optical head is represented by H in an optional length on the radius of the optical recording medium in a region for information-recording/reproducing, R_p satisfies the relation of $H > R_p \geq 0.1H$.
wherein the depth from the maximum height of the land to the centerline of the land and the groove is represented by R_p and the flying height from the maximum height of the land to the optical head is represented by H in an optional length on the radius of the optical recording medium in a region for information-recording/reproducing, wherein R_p satisfies the relation of $H > R_p > 0.1H$.

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2. (currently amended): The optical recording ~~medium-system~~ according to Claim 1,
wherein the optional length is 2 - 100 times as much as the-a track pitch.

3. (currently amended): The optical recording ~~medium-system~~ according to Claim 1,
wherein a substrate obtained by irradiating with light indicating with the strongest relative
intensity between the wavelengths of 350 - 1500 nm to a front surface at a side of the forming a
recording layer of a thermoplastic plastic substrate is used. what

4. (currently amended): The optical recording ~~medium-system~~ according to Claim 3,
wherein the irradiated light is at least one light of one or more kinds selected from the group
consisting of super-high pressure mercury lamp, high pressure mercury lamp, flash UV lamp,
metal halide lamp, fluorescent lamp, arc lamp and halogen lamp.

Claims 5-15 (canceled).

16. (currently amended): In an An optical recording medium comprising a substrate
wherein at least a reflective layer and a recording layer are formed in this order on a said
substrate in which a land and a groove for data-recording/reproducing and a header area are
provided, and information-recording/reproducing is carried out by an optical head, and

wherein the optical recording medium being characterized in that when the effective
numerical aperture of the optical head used is represented by NA, the wavelength of laser used is
represented by λ , the depth from the maximum height of the surface of the recording medium to
the centerline of the header is represented by Rph and the depth from the maximum height of the
surface of the recording medium to the centerline of the land and the groove is represented by

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Rpd in an optional length on the radius of the optical recording medium in a region for information-recording/reproducing, the optical recording medium has a shape in its surface satisfying the relation of $\Delta R_p \leq \lambda / 16NA$ where ΔR_p represents the absolute value obtained by subtracting the minimum value of Rpd from the maximum value of Rph or the absolute value obtained by subtracting the minimum value of Rph from the maximum value of Rpd, whichever is larger, the values of Rph and Rpd being obtained by measuring at plural positions.

17. (original): The optical recording medium according to Claim 16, wherein a format information is recorded in the header by means of convex bumps and/or concave pits.

18. (original): The optical recording medium according to Claim 16, wherein the convex bumps and/or concave pits are formed in the header so as to satisfy the relation of $(R_{ph}-R_{pd}) < \lambda / 16NA$ where each value of Rph and Rpd is obtained by measuring at plural positions.

19. (original): The optical recording medium according to Claim 16, wherein a groove is formed in the header so as to satisfy the relation of $|R_{ph}-R_{pd}| \leq \lambda / 16NA$ where each value of Rph and Rpd is obtained by measuring at plural positions.

20. (currently amended): In an An optical recording medium comprising a substrate wherein at least a land portion and a groove portion, which takes part in recording/reproducing, and a header area for recording a format information are formed in a-said substrate;

wherein information is recorded in at least the land portion, and information recording/reproducing is carried out,

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wherein the optical recording medium being characterized in that the height of the header area is different from the height of the land portion.

21. (original): The optical recording medium according to Claim 20, wherein the height of the header area is higher than the height of the land portion.

22. (original): The optical recording medium according to Claim 20, wherein the height of the header area is lower than the height of the land portion.
